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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
| 10/780,299 | 02/17/2004 | Patrick Calahan | BEAS-01330US1 | 9743 |

23910 7590 03/20/2007
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| EXAMINER |
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TO, BAOQUOC N

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| ART UNIT | PAPER NUMBER |
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2162

| SHORTENED STATUTORY PERIOD OF RESPONSE | MAIL DATE | DELIVERY MODE |
|--|------------|---------------|
| 3 MONTHS | 03/20/2007 | PAPER |

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

| | | | |
|------------------------------|------------------------|---------------------|--|
| Office Action Summary | Application No. | Applicant(s) | |
| | 10/780,299 | CALAHAN, PATRICK | |
| | Examiner | Art Unit | |
| | Baoquoc N. To | 2162 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 01/08/2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-33 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-33 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. Claims 1-33 are pending in this application.

Response to Arguments

2. Applicant's arguments filed 01/08/2007 have been fully considered but they are not persuasive.

Applicant argues "Kozlov teaches keeping in memory only a subset of the stream of events at any time...". The applicant respectfully disagrees. Kozlov stores elements into memory first, then some of the element are removed only if certain condition (as described in ([0046]-[0048]) are met. In other words, it is quite likely that the entire document stays in memory and none of the elements is removed under certain conditions. Consequently, the memory demand will always go up to accommodate peak usage before (if ever) going down, and there must be sufficient memory to meet such demand."

The examiner respectfully disagrees with the above argument. As Kozlov discloses "thus one aspect of the invention is that it may not be necessary to build a full document tree, as the rule set is used to reduce the document tree" (paragraph 0039). This suggests only the subset of the document are build based on a set rule where as the claim identified to keep a subset of events in the memory at anytime which indicate there is a time all the stream of events are kept for all time and other time a subset of the stream of events are keep. Further the subset of events can also be for example 1 has events A, B and C, a subset of 1 can be all or any combination of A, B and C but it

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is still a subset of 1. Therefore, the claim limitation is taught by Kozlov as the reason indicated.

Claim Rejections - 35 USC § 101

35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

MPEP 2106 (IV)(B)(2)(a):

Products may be either machines, manufactures, or compositions of matter.

A *machine* is “a concrete thing, consisting of parts or of certain devices and combinations of devices.” *Burr v. Duryee*, 68 U.S. (1 Wall.) 531, 570 (1863).

If a claim defines a useful machine or manufacture by identifying the physical structure of the machine or manufacture in terms of its hardware or hardware and software combination, it defines a statutory product. See, e.g., *Lowry*, 32 F.3d at 1583, 32 USPQ2d at 1034-35; *Warmerdam*, 33 F.3d at 1361-62, 31 USPQ2d at 1760.

Office personnel must treat each claim as a whole. The mere fact that a hardware element is recited in a claim does not necessarily limit the claim to a specific machine or manufacture. Cf. *In re Iwahashi*, 888 F.2d 1370, 1374-75, 12 USPQ2d 1908, 1911-12 (Fed. Cir. 1989), cited with approval in *Alappat*, 33 F.3d at 1544 n.24, 31 USPQ2d at 1558 n.24.

3. Claims 1-12 and 33 in viewed of application disclosure are not machine they software processes or program per se. Claims 1-12 and 33 lack the necessary physical articles or objects to constitute a machine or a manufacture within the meaning of 35 USC 101. Further more, claim 1, 4, 8-9 and 11-12 does not produce tangible result

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because the term "operable to" which does not require the step to be performed. Once the step is not performed, there is no concrete, useful and tangible result.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1-33 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wang (Pub. No. 2004/0167864) in view of kozlov (Pub. No. 2003/0221168 A1) and further in view Beauchamp et al. (US. Patent No. 6,621,505 B1).

Regarding on claims 1, 13, 23 and 33, Wang teaches a computer-implemented system to process XML document, comprising:

A streaming parser operable to parse an XML document and generating a stream of events, wherein each event in the stream can represent a portion of the document (paragraph 0043, lines 3-5);

A matching component (paragraph 0043, line 19) operable to:

accepting the stream of events from the streaming parser (paragraph 0043, lines 7-10);

performing matching on an event in the stream (paragraph 0043, lines 19-22); and

Wang does not explicitly teach keeping in memory only a subset of the stream of events at any time; notifying an observer if the event is a match; said observer operable to listen for a matching event and passing it to a user object; and said user object operable to handle the matching event. However, Kozlov teaches keeping in memory only a subset of the stream of events at any time as to a check is made to determine whether child element of the current element can be removed from memory. This is the case when all child elements and their descendants have already been formatted in step 208...(paragraph 0048, lines 1-7). Suggestion from Kozlov due to the insufficient memory, only the current elements are kept in the memory. Therefore, it would have been obvious to one having ordinary skill in the art at the time of the invention was made to modify Wang's system by keeping in memory only a subset of stream of events as the system only requires to maintain those current stream of data in the memory to enhance system performance. On the other hand, Beauchamp teaches notifying an observer if the event is a match; said observer capable of listening for a matching event and passing it to a user object; and said user object capable of handling the matching event (col. 21, lines 15-29). This suggests the concept of notifying the system to update the changes by the monitor. Therefore, it would have been obvious to one ordinary skill in the art at the time of the invention was made to modify Wang's system to maintain the current data elements in the memory at a given time as taught from Kozlov and

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incorporate event notification as taught by Beauchamp to allow the system to continuously process data when the parsing process is completed.

Regarding on claim 2, Wang teaches the system recited in claim 1, wherein the XML document is represented in a hierarchical structure (tree node) (paragraph 0043, lines 8-10).

Regarding on claims 3, 13 and 24, Wang teaches the system according to claim 2, wherein the hierarchical structure is a tree with each node containing a portion of the document (tree node containing a event 27) (paragraph 0043, lines 7-10).

Regarding on claims 4, 15 and 25, Wang teaches the system according to claim 3, wherein the streaming parser is operable to perform a method, comprising:

Traversing the XML tree and adding visited nodes into a data structure (paragraph 0043, lines 39-43);

Processing the nodes in the data structure and generating an event for each node (paragraph 0043, lines 39-43); and

Appending the event to the output stream (paragraph 0043, lines 39-43).

Regarding on claims 5, 16 and 26, Wang teaches the system according to claim 4, wherein the tree is traversed using a breath-first or depth-first search (paragraph 0044).

Regarding on claim 6, Wang teaches the system according to claim 4, wherein the data structure can be a queue (paragraph 0057).

Regarding on claims 7, 17 and 27, Wang teaches the system according to claim 4, wherein the data structure is processed using a first-in-first-out approach (paragraph 0044).

Regarding on claims 8, 18 and 29, Wang teaches the system according to claim 1, wherein the matching component is operable of keeping only a portion of the XML document in memory at any given time (paragraph 0043, lines 17-20).

Regarding on claims 9, 19 and 30, Wang teaches the system according to claim 1, wherein the matching component is operable to know the schema of the XML document and foreseeing the coming events (page 4, paragraph 0036, lines 8-10).

Regarding on claims 10, 20 and 28, Wang teaches the system according to claim 1, wherein the matching component is an expression-based matched, which can be an Xpath query (xpath query) (paragraph 0035, line 14).

Regarding on claims 11, 21 and 31, Wang teaches the system according to claim 3, wherein the matching component is operable to keep, cloning and destroying the entirely or a portion of the sub-tree descending from a node in the tree (paragraph 0045).

Regarding on claims 12, 22 and 32, Wang teaches the system according to claim 1, wherein the user object is operable to return the matching event to an XML stream for use by any other component (paragraph 0043).

Conclusion

5. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Contact Information

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Baoquoc N. To whose telephone number is at 571-272-4041, or unofficial fax number for the purpose of discussion (571) 273-4041 or via e-mail BaoquocN.To@uspto.gov. The examiner can normally be reached on Monday-Friday: 8:00 AM – 4:30 PM, EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Breene can be reached at 571-272-4107.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-3900.

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Any response to this action should be mailed to:

Commissioner of Patents and Trademarks

Washington, D.C. 20231.

The fax numbers for the organization where this application or proceeding is assigned are as follow:

(571) -273-8300

[Official Communication]

BQ To



March 16th, 2007


JOHN BREENE
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2100